

REMARKS/ARGUMENTS

The Office Action mailed June 23, 2004 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 1-71 are now pending.

Applicants gratefully acknowledge the indication of allowance of claims 52-56. Applicants are further grateful for the indication of allowability of claims 6-8, 12-13, 19-21, 25-26, 32-34, and 38-39, subject to their re-writing in independent form including all of the limitations of the base claim and any intervening claims.

Regarding Amendments

Claims 32 and 53 have been amended to correct claim dependencies. The text of claims 33, 34, 54, and 55 is unchanged, but their meaning is changed because they depend from amended claims.

New claims 57-71 also particularly point out and distinctly claim subject matter regarded as the invention. New claims 57-59, 60-61, 62-64, 65-66, 67-69, and 70-71 represent claims 6-8, 12-13, 19-21, 25-26, 32-34, and 38-39, respectively, written in independent form including all of the limitations of the base claim and any intervening claims.

The Amendment also contains minor changes of a clerical nature. No “new matter” has been added by the Amendment.

The 35 U.S.C. § 102 Rejection

Claims 1-2, 14-15 and 27-28 were rejected under 35 U.S.C. § 102(a) as being allegedly anticipated by Jacobson et al.^{1 2} This rejection is respectfully traversed.

According to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102(a) only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.³

Claim 1

Claim 1 recites:

A method for controlling subscriber access in a network capable of establishing connections with a plurality of domains, comprising:
receiving a communication from a subscriber using a first communication network coupled to at least one other communication network, said communication optionally including a domain identifier associated with a domain on said at least one other communication network;
determining whether said subscriber is authorized to access said domain based upon said domain identifier and a list of authorized domains for a virtual circuit used to receive said communication;
authorizing subscriber access to said domain when said domain identifier is included in said list.

¹ U.S. Patent No. US 6,044,402 to Jacobson et al.

² Office Action dated June 23, 2004, ¶ 3.

³ Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Examiner states:

Jacobson teaches a method for controlling subscriber access in a network capable of establishing connections with a plurality of domains, comprising:

receiving a communication from a subscriber using a first communication network coupled to at least one other communication network (i.e., receiving a packet 114 transmitted between the protected and remote host computers 104-1 and 104-2), said communication optionally including a domain identifier associated with a domain (a network header 142 in each packet 114 containing a source address 144, a destination address 146 and a transport protocol ID 148 associated with a domain) on said at least one other communication network (Jacobson, Fig. 1, C3: L27-56 and C11: L1-41);

determining whether said subscriber is authorized to access said domain based upon said domain identifier and a list of authorized domains for a virtual circuit used to received said communication (Jacobson, C15: L66-67 and C16: L1-21);

authorized subscriber access to said domain when said domain identifier is included in said list (Jacobson, C18: 1-42-53).⁴

The Applicants respectfully disagree for the reasons set forth below.

Contrary to the Examiner's statement, Jacobson et al. does not disclose receiving a communication from a subscriber using a first communication network coupled to at least one other communication network, said communication optionally including a *domain* identifier associated with a domain on said at least one other communication network. In fact, nowhere does Jacobson et al. use the word "domain". In support of the Examiner's contention, the Examiner refers in part to the following in Jacobson et al.:

Each host computer 104 in the network 100 includes a global network address in accordance with the network protocol 120 that uniquely identifies it from all other host computers in the network. In order to properly route the packets 114 between the host computers 104 that are their initial sources and final destinations, a network layer header 142, as shown in FIG. 3, is attached to each packet by the network protocol stack of the host computer that is its source. This is done at the network layer in accordance with the network layer protocol 120.

The network layer header 142 in each packet 114 contains a source address 144, a destination address 146, and a transport protocol (i.e., packet type) ID (identifier) 148, as

⁴ Office Action ¶ 4.

shown in FIG. 3. Thus, the network protocol stack of the initial source of each packet sets the source address to be the network address of the initial source and sets the destination address to be the network address of the final destination of the packet. And, the network protocol stack of the initial source also sets the transport protocol ID to identify the transport protocol that is being used in the connection between the client and the server.

As indicated earlier, the service access address of the host computer 104 that is the server in a connection identifies the application layer protocol used in the connection. Furthermore, the service access address and the network address of the client in the connection identifies one endpoint of the connection and the service access address and network address of the server identifies the other endpoint of the connection. Thus, the service access addresses and the network addresses of the client and the server comprise a connection information set that uniquely identifies the connection, its endpoints, and the application layer protocol used in the connection. For example, in the connection of FIGS. 4 to 6, the TCP/IP protocol suite may be used so that the network layer protocol is the IP protocol and the transport protocol is the TCP protocol. In this case, the client 105 and the server 109 have IP addresses and TCP port numbers that identify the connection, its endpoints, and the application layer protocol used in the connection.⁵

Thus the source address and the destination address included in the packet header disclosed by Jacobson et al. are network addresses of individual computers. Neither is a *domain* identifier associated with a domain on the at least one other communication network. And the transport protocol ID identifies the transport protocol that is being used in the connection between a client and a server, but does not identify a *domain* on the at least one other communication network. While the source address, destination address, and transport protocol taken together may uniquely identify a physical connection between two computers, they are not a *domain* identifier associated with a domain on the at least one other communication network.

Nor does Jacobson et al. disclose determining whether said subscriber is authorized to access said domain based upon said domain identifier and a list of authorized domains for a

⁵ Jacobson et al. at col. 11 lines 1-41. (emphasis added)

virtual circuit used to receive said communication. In support of the contention that Jacobson et al. discloses this element, the Examiner refers to the following in Jacobson et al.:

Furthermore, the blocking data structure 192 includes a network address access list 212 that identifies the *network address* access policy for all of the protected host computers 104-1 that have been assigned the restricted mode. As shown in FIG. 13, the network address access list is a list of the *network addresses* of the protected and remote host computers 104-1 and 104-2 *for which a connection will only be allowed if it has an endpoint at one of these host computers and an endpoint at one of the protected host computers that has been assigned the restricted mode.*

Therefore, for each packet 114 from which a connection information set has been obtained, the blocking controller 170 determines whether to block the connection based on the connection information set and the blocking data structure 192. This is done in the following manner using the blocking mode table 200, the network address block list 202, the remote and local protocol block lists 204 and 206, the override table 208, the override protocol lists 210, and the network address access list 212 of the blocking data structure and the source and destination network addresses and the source and destination service access addresses 124 and 126 in the connection information set.⁶

Thus, Jacobson et al. teaches determining whether to block a connection based upon the *network addresses* of two *endpoints*, and a blocking mode table, a *network address* block list, remote and local protocol block lists, an override table, override protocol lists, and a the *network address* access list of the blocking data structure and the source and destination *network addresses* and the source and destination service access *addresses*. Jacobson et al. does not teach determining whether a subscriber is authorized to access a *domain*, nor does Jacobson et al. does teach making the determination based upon both (1) a *domain* identifier and (2) a list of authorized *domains for a virtual circuit used to received said communication* as required by claim 1.

⁶ Jacobson et al. at col. 15 line 66 to col. 15 line 21. (emphasis added)

Nor does Jacobson et al. disclose authorizing subscriber access to said domain when said domain identifier is included in said list. The argument made above with respect to the “determining” element is applicable here as well. Jacobson et al. does not teach determining whether a subscriber is authorized to access a domain based upon a domain identifier and a list of authorized domains for a virtual circuit used to receive a communication. Thus, Jacobson et al. cannot teach using the result of such a determination to authorize subscriber access.

For the above reasons, the 35 U.S.C. § 102 rejection of claim 1 is unsupported by the art. Thus, no prima facie case of obviousness has been established and the 35 U.S.C. § 102 rejection should be withdrawn.

Claim 2

Claim 2 depends from claim 1. Claim 1 being allowable, claim 2 must be allowable for at least the same reasons.

Claims 14-15

Claims 14-15 are program storage device claims corresponding to method claims 1-2. Claims 1-2 being allowable, claims 14-15 must be allowable for at least the same reasons.

Claims 27-28

Claims 27-28 are means-plus-function claims corresponding to method claims 1-2. Claims 1-2 being allowable, claims 27-28 must be allowable for at least the same reasons.

The 35 U.S.C. § 103 Rejection

Claims 3-5, 9-11, 16-18, 22-24, 29-31, 35-37 and 40-51 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jacobson et al. in view of Loehndorf, Jr. et al.⁷, among which claims 40 and 46 are independent claims.⁸ This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.⁹

Claim 3 recites:

The method of claim 1 wherein said communication comprises a Point-to-Point Protocol (PPP) session.

Claim 4 recites:

The method of claim 3 wherein
said PPP session comprises a tunneling session;
said determining further comprises assigning a tunnel ID; and
said PPP session is forwarded onto a tunnel associated with said tunnel ID when said subscriber is authorized to access said domain.

Specifically, the Office Action contends that the elements of the presently claimed invention are disclosed in Jacobson et al. except that Jacobson et al. does not teach said communication comprises a Point-to-Point Protocol (PPP) session, which in turn comprises a

⁷ U.S. Patent No. 6,094,437.

⁸ Office Action ¶ 9.

⁹ M.P.E.P. § 2143.

tunneling session and said PPP session is forwarded onto a tunnel associated with an assigned tunnel ID when said subscriber is authorized to access said domain.¹⁰ The Office Action further contends that Loehndorf, Jr. et al. teaches:

... the Point-to-Point Protocol (PPP) has been standardized by the Internet Engineering Task Force (IETF) to be used to allow Internet Protocol (IP) and other protocols (such as IPX, XNS, AppleTalk, etc.) to be sent over non-IP mediums such as the Public Switched Telephone Network (PSTN), ATM, Frame Relay, SONET, etc. in Internet communications. Loehndorf also teaches the IETF developed the L2TP (Layer Two Tunneling Protocol) to allow the PPP session to be tunneled over the Internet by establishing the tunnel using a tunnel ID (i.e., forwarding PPP session onto a tunnel associated with an assigned tunnel ID) (Loehndorf, C1: L43 - C3: L25 and C1 1: L36-67).¹¹

The Office Action further contends that it would be obvious to one having ordinary skill in the art at the time of the invention to forward a PPP session onto a tunnel associated with an assigned tunnel ID when said subscriber is authorized to access said domain since such methods were conventionally employed in the art to securely send data between networks and to provide needed and improved functionality.¹² The Applicants respectfully disagree for the reasons set forth below.

Claims 3-5 and 9-11 depend from claim 1 and thus include the limitations of claim 1. The arguments made above with respect to claim 1 apply here as well. The 35 U.S.C. § 102 rejection of claim 1 based on Jacobson et al. is unsupported by the art, as each and every element as set forth in claim 1 is not found in Jacobson et al. Therefore, the 35 U.S.C. § 103 rejection of dependent claims 3-5 and 9-11 based on Jacobson et al. in view of Loehndorf, Jr. et al. is also

¹⁰ Office Action ¶ 10.

¹¹ Office Action ¶ 10.

¹² Office Action ¶ 10.

unsupported by the art. Thus, no prima facie case of obviousness has been established and the 35 U.S.C. § 103 rejection should be withdrawn.

Claims 16-18 and 22-24

Claims 16-18 and 22-24 are program storage device claims corresponding to method claims 3-5 and 9-11, respectively. Claims 3-5 and 9-11 being allowable, claims 16-18 and 22-24 must be allowable for at least the same reasons.

Claims 29-31 and 35-37

Claims 29-31 and 35-37 are means-plus-function claims corresponding to method claims 3-5 and 9-11, respectively. Claims 3-5 and 9-11 being allowable, claims 29-31 and 35-37 must be allowable for at least the same reasons.

Claims 40-51

Claims 40-51 are access server claims including limitations similar to method claims 3-5 and 9-11. Claims 3-5 and 9-11 being allowable, claims 40-51 must also be allowable for at least the same reasons.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

Allowable Subject Matter

The Examiner is thanked for the allowance of claims 52-56, and for the finding of allowable subject matter in claims 6-8, 12-13, 19-21, 25-26, 32-34, and 38-39 if rewritten in independent form including all of the limitations of the base claim and any intervening claims. New claims 57-59, 60-61, 62-64, 65-66, 67-69, and 70-71 represent claims 6-8, 12-13, 19-21, 25-26, 32-34, and 38-39, respectively, written in independent form including all of the limitations of the base claim and any intervening claims. Applicants acknowledge the Examiner's statement of reasons for allowance as set forth in the Office Action. However, Applicants point out that the reasons for allowability of the above referenced claims are not limited to the reasons for allowance as set forth in the Office Action, and that additional reasons for allowability may exist, each of which may be independently sufficient to establish the patentability of one or more pending claims.

Applicants respectfully reserve the right to introduce, articulate, or otherwise comment on any such additional reasons for allowance as may be appropriate in any future proceedings concerning the claimed invention.

Information Disclosure Statement

An Information Disclosure Statement was submitted on February 14, 2000. Although the Examiner signed and returned copies of PTO Form 1449, the Examiner's initials are missing from entry "AA" on PTO Form 1449 page 2 of 2. Applicant hereby respectfully requests full acknowledgment of the reference cited in the IDS.

Attached herewith is a copy of the returned PTO Form 1449 filed on February 14, 2000. Please send the PTO form 1449 with the Examiner's signature beside all cited references.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

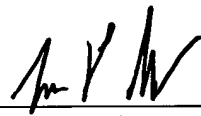
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

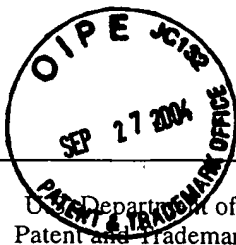
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Information Disclosure Statement by Applicant

Applicant: Sheth et al.

(Use several sheets if necessary)

Filed: 11/13/00 Group:

U.S. Patent Documents

Init.	Document No.	Date	Name	Class	Subclass	Filing Date

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Foreign Documents

Init.	Document No.	Date	Country	Class	Subclass	Translation	
						Yes	No
	AA 99/53408						

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

QW	AB	"Cisco Asymmetric Digital Subscriber Line Services Architecture", Cisco Systems, White Paper, printed from http://www.cisco.com/warp/public/cc/so/neso/dsso/global/adsl_wp.htm on 9/27/00.
	AC	Cisco, Product Bulletin - No. 1120, "Cisco 6400 Universal Access Concentrator, printed from http://www.cisco.com/warp/public/cc/pd/as/6400/prodlit/1120_pp.htm on October 4, 2000.
	AD	Cisco, "Layer 2 Tunnel Protocol", Release 12.0(1)T and 11.3(5)AA, 53 pages.
	AE	"Cisco 6400 Access Concentrators", Cisco Systems, Inc., printed from http://www.cisco.com/warp/public/cc/pd/as/6400/index.shtml on 9/27/00.
	AF	Cisco, "Cisco 6400 Series Universal Access Concentrator", printed from http://www.cisco.com/warp/public/cc/pd/as/6400/prodlit/6400_ds.htm on September 27, 2000.
	AG	"L2TP", 1998, Mecklermedia Corporation, printed from http://www.webopedia.internet.com/TERM/L/L2TP/html .
	AH	"MultiVPN from Ascend Communications: Breaking Down the Barriers to VPNs", Ascend Communications, Inc., White Paper, 1998.
	AI	Rigney, et al., "Remote Authentication Dial In User Service (RADIUS)", Network Working Group, RFC 2138, April 1997, pp. 1-57.
	AJ	"Tunneling", 1998, Mecklemedia Corporation, printed from http://webopedia.internet.com/TERM/t/tunneling.html
QW	AK	Valencia, et al., "Layer Two Tunneling Protocol "L2TP", May 1998, Cisco Systems, Inc., printed from http://www.masinter.net/~l2tp/ftp/draft-ietf-pppext-l2tp-11.txt on 9/21/98.

Examiner

Date Considered

6/14/2004

Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.